Industry Recognized Credential Transfer Assurance Guide: Computer Aided Drafting/Design

(Autodesk Certified Associate or Professional; SOLIDWORKS Associate or Professional)

September 27, 2022

Industry Recognized Credential Transfer Assurance Guides (ITAGs) are a statewide transfer initiative that guarantees the award of college-level credit to students earning agreed-upon, industry recognized credentials. Students meeting credentialing requirements, regardless of where the learning was achieved, will be eligible to earn credit for specified courses deemed equivalent to the stated industry recognized credential listed on the ITAG document. Credentials are reviewed and aligned to postsecondary learning outcomes that are endorsed by Ohio's public institutions of higher education. The receiving institution must offer an equivalent course or program. Additional information on accessing and awarding ITAG credit is outlined in this document.

Required Credential(s)

Credential Names: Students who hold any **one** of the following credentials are eligible for ITAG credit:

1. Autodesk Certified Associate in CAD for Mechanical Design
2. Autodesk Certified Professional in Inventor for Mechanical Design
3. Certified SOLIDWORKS Associate in Mechanical Design
4. Certified SOLIDWORKS Professional in Mechanical Design

Credential Issuer: Autodesk; SOLIDWORKS

Exam(s): Autodesk Certified Associate in CAD for Mechanical Design certification exam

Autodesk Certified Professional in Inventor for Mechanical Design certification exam

Certified SOLIDWORKS Associate in Mechanical Design (CSWA-MD): CSWA-MD

Certified SOLIDWORKS Professional in Mechanical Design (CSWP-MD): CSWA-MD + CSWP-MD (Segments 1-3)

Credit Access and Verification

Student: Autodesk and SOLIDWORKS both provide access to your certification as a digital badge via Credly. You should log in to your Credly account and share your badge information by sending it to the email address provided by your college or university. Additional information can be found in the "After you certify" section of the FAQ page on the Autodesk website or on the 3DExperience Certification Center for SOLIDWORKS.

Institution: Please provide the student requesting credit with the appropriate email address to send verification of certification.

Course Information

Course Name: ITMET005 – Computer Aided Drafting/Design (OET012; CTMET005)
Credit Hours: 3
Course Description: This course introduces the student to the fundamental concepts used in creating computer-generated drawings using a commercial CAD software. Topics include coordinate systems, construction, text insertion, editing techniques, views, projections, display control inquiry techniques, dimensioning and use of part libraries in the creating of drawings and assemblies. Bill of materials will be generated from multi-sheet assemblies. Students will develop 3D objects using primitive solids and Boolean operations. Learning outcomes are achieved through various in class and laboratory experiences.

Learning Outcomes and Credential Alignment

Proposed Alignment of Autodesk and SOLIDWORKS Credentials to Postsecondary Learning Outcomes for Computer Aided Drafting/Design.

Postsecondary Learning Outcomes ***(Copy of OET012 and CTMEt005)***	**Credential Content: Autodesk Certified Associate in CAD for Mechanical Drawing; Autodesk Inventor Certified Professional in Inventor for Mechanical Design**	**Credential Content: Certified SOLIDWORKS Associate; Certified SOLIDWORKS Professional**
1. Demonstrate proficiency of a commercial CAD system based on ASME (ANSI) Y14.5M or equivalent ISO standards.*	Draw and organize objects. Project setup Drawing and Modeling	Sketching and Basic Features
2. Create working drawings using orthographic projections, section views, and auxiliary views.*	Technical detailed drawing creation 3D component modeling 3D assembly modeling and management	Drawings, assemblies, mates

Postsecondary Learning Outcomes *(Copy of OET012 and CTMEt005)*	Credential Content: Autodesk Certified Associate in CAD for Mechanical Drawing; Autodesk Inventor Certified Professional in Inventor for Mechanical Design	Credential Content: Certified SolidWorks Associate; Certified SolidWorks Professional
3. Create detail drawings that include dimensions and tolerances.*	Draw and organize objects. Project setup	Drawings, assemblies, mates, reference geometry
4. Create assembly drawings including bill of materials.*	3D assembly modeling and management Assembly modeling	Drawings, assemblies, mates, reference geometry
5. Demonstrate a basic knowledge of 3D modeling.*	3D component modeling 3D assembly modeling and management Advanced part modeling	Sketches, drawings, features, assemblies, and mates

ITAG Development Panel

Lead name	Institution/Organization	Role
Robert Speckert	Miami University	Lead Panel Member - Faculty
Dr. C. M. Lamb	Youngstown State University	Panel Member – Faculty
Dan Wagner	North Central State College	Panel Member – Faculty
Amy Bian	University of Toledo	Panel Member – Faculty
John Bis	Lorain County Community College	Panel Member – Faculty
Nora Hatem	Clark State Community College	Panel Member – Faculty
Tobin Huebner	Grant Career Center	Panel Member – Career Center/OTC
John Henry	Mitsubishi Electric	Industry
Ritch Ramey	RAMTEC	Industry
Bob Graff	I4.0Strategies,LLC	Industry
Nikki Wearly	Ohio Department of Higher Education	Director, Career-Technical Education Transfer Initiatives
Dr. Ben Parrot	Ohio Department of Higher Education	Senior Associate Director, SCTAI Implementation